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Docket No.: 13173-00025-US
(PATENT)**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:
Ralf Flachmann et al.

Application No.: National Phase of
PCT/EP2004/008623

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: METHOD FOR PRODUCING
KETOCAROTENOIDS IN GENETICALLY
MODIFIED, NON-HUMAN ORGANISMS

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

Of the documents listed on the attached SB/08 are the documents cited in the International Search Report during the prosecution of international application no. PCT/EP2004/008623, which corresponds to the above referenced application. In accordance with 37 CFR 1.97(b)(2), Applicants hereby submit these documents for the Examiner's consideration. A copy of each document required under 37 CFR 1.98(a)(2) is enclosed.

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In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such. Moreover, Applicants understand the Examiner will make an independent evaluation of the cited documents.

Applicants believe no fee is due. However, if a fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 13173-00025-US, from which the undersigned is authorized to draw.

Respectfully submitted,

By 
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PTO/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	Not Yet Assigned	
			Filing Date	Concurrently Herewith	
			First Named Inventor	Ralf Flachmann	
			Art Unit	N/A	
			Examiner Name	Not Yet Assigned	
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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	BA	EP-0 725 137-A1	08-07-1996	Kirin Beer Kabushiki Kaisha		
	BB	WO-98/18910-A1	05-07-1998	Yissum Research and Development Company of the Hebrew University of Jerusalem		
	BC	WO-01/20011-A1	03-22-2001	Astacarotene AB		
	BD	WO-02/079395-A2	10-10-2002	Cargill Incorporated		
	BE	DE-102 38 980-A1	03-04-2004	SunGene GmbH & Co. KGaA		See Attached
	BF	DE-102 53 112-A1	06-03-2004	SunGene GmbH & Co. KGaA		See Attached
	BG	DE-102 58 971-A1	07-01-2004	SunGene GmbH & Co. KGaA		See Attached
	BH	DE-103 00 649-A1	07-22-2004	BASF AG		See Attached

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	Ronen, Gil, et al., "An Alternative Pathway to β -carotene Formation in Plant Chromoplasts Discovered by Map-based Cloning of <i>Beta</i> and <i>Old-gold</i> Color Mutations in Tomato", Proceedings of National Academy of Science of the United States of America, Vol. 97, No. 20 (2000), pp. 11102-11107.	
	CB	Ronen, G., et al., "Lycopersicon esculentum chromoplast-specific lycopene beta-cyclase mRNA, complete cds.", Database EMBL-EBI, Accession No. AF254793, October 9, 2000.	
	CC	Lotan, Tamar, et al., "Cloning and Expression in <i>Escherichia coli</i> of the Gene Encoding β -C-4-oxygenase, That Converts β -carotene to the Ketocarotenoid Canthaxanthin in <i>Haematococcus pluvialis</i> ", FEBS Letters, Vol. 364 (1995), pp. 125-128.	
	CD	Harker, Mark et al., "Biosynthesis of Ketocarotenoids in Transgenic Cyanobacteria Expressing the Algal Gene for β -C-4-oxygenase, <i>crtO</i> ", FEBS Letters, Vol. 404 (1997), pp. 129-134.	
	CE	Krubasik, P., et al., "Molecular Evolution of Lycopene Cyclases Involved in the Formation of Carotenoids with Ionone End Groups", Biochemical Society Transactions, Vol. 28, Part 6 (2000), pp. 806-810.	

Examiner Signature		Date Considered	
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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	Not Yet Assigned
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				Examiner Name	Not Yet Assigned
				Attorney Docket Number	13173-00025-US
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	CF	Kajiwara, Susumu, et al., "Isolation and Functional Identification of a Novel cDNA for Astaxanthin Biosynthesis from <i>Haematococcus pluvialis</i> , and Astaxanthin Synthesis in <i>Escherichia coli</i> ", Plant Molecular Biology, Vol. 29 (1995), pp. 343-352.	
	CG	Kaneko, Takakazu, et al., "Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium <i>Anabaena</i> sp. Strain PCC 7120", DNA Research, Vol. 8 (2001), pp. 205-213.	
	CH	Mann, Varda, et al., "Metabolic Engineering of Astaxanthin Production in Tobacco Flowers", Nature Biotechnology, Vol. 18 (2000), pp. 888-892.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

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